

Listing of the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-8 (Canceled).

9. (Original) A mobile computer device capable of carrying out communications while moving over inter-connected networks, the mobile computer device comprising:

a registration message transmission unit for transmitting a registration message containing an information on a current location of the mobile computer device, from outside a home network of the mobile computer device to a mobile computer management device located at the home network, the mobile computer management device having a function for managing the information on the current location of the mobile computer device and transferring packets destined to the mobile computer device to the current location of the mobile computer device;

a user input unit for accepting a user input for user authentication; and

a user-input-based information transmission unit for transmitting to the mobile computer management device a response message containing information based on the user input as a user authentication information, when a challenge message that requests returning of the user authentication information is received from the mobile computer management device in response to the registration message.

10. (Original) The mobile computer device of claim 9, further comprising:

an authentication unit for judging a properness of the mobile computer management device according to the challenge message received from the mobile computer management device;

wherein the user-input-based information transmission unit transmits the response message containing the information based on the user input when the mobile computer management device is judged as proper.

11. (Original) The mobile computer device of claim 9, wherein the user input based information transmission unit transmits the response message containing a one-time password based on a challenge code contained in the challenge message received from the mobile computer management device as the user input based information.

12. (Original) The mobile computer device of claim 9, further comprising:

a message transmission stopping unit for stopping subsequent transmissions of the registration message from the mobile computer device when a message indicating a failure of the user authentication is received from the mobile computer management device for a prescribed number of times consecutively.

13. (Original) The mobile computer device of claim 9, wherein the user input based information transmission unit transmits a password entered by a user at the mobile computer device as the user input based information.

14. (Original) A mobile computer device capable of carrying out communications while moving over inter-connected networks, the mobile computer device comprising:

an external interface unit for reading out desired information from an external memory device connected to the mobile computer device, wherein the external memory device stores at least a user information and a network information to be used for communications at a visited site;

a user authentication unit for carrying out first user authentication locally at the mobile computer device according to the user information stored in the external memory device and a user input;

a registration message transmission unit for transmitting a registration message containing an information on a current location of the mobile computer device, from outside a home network of the mobile computer device to a mobile computer management device located at the home network, by using the network information read out from the external memory device under a control by the user authentication unit, the mobile computer management device having a function for managing the information on the current location of the mobile computer device and transferring packets destined to the mobile computer device to the current location of the mobile computer device; and

a user-input-based information transmission unit for transmitting to the mobile computer management device a user-input-based information to be used for second user authentication at the mobile computer management device.

15. (Original) The mobile computer device of claim 14, wherein the user authentication unit permits reading from the external memory device through the external interface unit when the first user authentication succeeds.

16. (Original) The mobile computer device of claim 14, wherein the user authentication unit permits transmission of the registration message by the registration message transmission unit when the first user authentication succeeds.

17. (Original) The mobile computer device of claim 14, wherein the user information stored in the external memory device contains a personal information of a user who uses the mobile computer device, and the user authentication unit judges that the first user authentication succeeds when a user authentication information stored in the mobile computer device in

correspondence to the personal information stored in the external memory device coincides with the user input as entered by the user at a time of connecting the external memory device to the mobile computer device.

18. (Original) The mobile computer device of claim 14, further comprising:

a reading prohibiting unit for prohibiting subsequent reading from the external memory device through the external interface unit when the first user authentication fails for a prescribed number of times consecutively.

19. (Original) The mobile computer device of claim 14, further comprising:

a message transmission stopping unit for stopping subsequent transmissions of the registration message from the mobile computer device when the first user authentication fails for a prescribed number of times consecutively.

20. (Original) The mobile computer device of claim 14, further comprising:

a reading prohibiting unit for prohibiting subsequent reading from the external memory device through the external interface unit when the second user authentication at the mobile computer management device fails for a prescribed number of times consecutively.

21. (Original) The mobile computer device of claim 14, further comprising:

a message transmission stopping unit for stopping subsequent transmissions of the registration message from the mobile computer device when the second user authentication at the mobile computer management device fails for a prescribed number of times consecutively.

22. (Original) The mobile computer device of claim 14, wherein the network information to be read out from the external memory device contains at least one of a home address information of the mobile computer device, an address information of the mobile computer management device, and an information for host authentication to be carried out between the mobile computer device and the mobile computer management device.

23. (Original) The mobile computer device of claim 14, wherein the external memory device also stores a security information with respect to a packet relay device which is capable of processing encrypted packets transmitted from the mobile computer device, and the mobile computer device carries out cipher communications using an encryption processing from the visited site, by using the security information read out from the external memory device through the external interface unit.

24. (Original) The mobile computer device of claim 14, further comprising:

an internal memory for temporarily storing the desired information read out from the external memory device, wherein the desired information temporarily stored in the internal memory is deleted when communications using the desired information is finished.

Claims 25-28 (Canceled).

29. (Original) An article of manufacture, comprising:

a computer usable medium having computer readable program code means embodied therein for causing a computer to function as a mobile computer capable of carrying out communications while moving over inter-connected networks, the computer readable program code means includes:

first computer readable program code means for causing said computer to transmit a registration message containing an information on a current location of the mobile computer, from outside a home network of the mobile computer to a mobile computer management device located at the home network, the mobile computer management device having a function for managing the information on the current location of the mobile computer and transferring packets destined to the mobile computer to the current location of the mobile computer; and

second computer readable program code means for causing said computer to accept a user input for user authentication; and

third computer readable program code means for causing said computer to transmit to the mobile computer management device a response message containing information based on the user input as a user authentication information, when a challenge message that requests returning of the user authentication information is received from the mobile computer management device in response to the registration message.

30. (Original) An article of manufacture, comprising:

a computer usable medium having computer readable program code means embodied therein for causing a computer to function as a mobile computer device capable of carrying out communications while moving over inter-connected networks, the computer readable program code means includes:

first computer readable program code means for causing said computer to read out desired information from an external memory device connected to the mobile computer device, wherein the external memory device stores at least a user information and a network information to be used for communications at a visited site;

second computer readable program code means for causing said computer to carry out first user authentication locally at the mobile computer device according to the user information stored in the external memory device and a user input;

third computer readable program code means for causing said computer to transmit a registration message containing an information on a current location of the mobile computer device, from outside a home network of the mobile computer device to a mobile computer management device located at the home network, by using the network information read out from the external memory device under a control by the second computer readable program code means, the mobile computer management device having a function for managing the information on the current location of the mobile computer device and transferring packets destined to the mobile computer device to the current location of the mobile computer device; and

fourth computer readable program code means for causing said computer to transmit to the mobile computer management device a user-input-based information to be used for second user authentication at the mobile computer management device.

31. (Previously presented) The mobile computer device of claim 24, wherein the internal memory stores both the user information and the network information read from the external memory, and wherein the user information is used for the first user authentication performed solely by the mobile computer device.